



## NORTHWEST POWER NORTHWEST VALUES

**Job Title & Series:**

Supervisory Electrical Engineer, GS-850

**Job Announcement Number:**

9326-11-DE

**Grade & Salary Range:**

GS-13: \$81,823 - \$106,369

**Opens:** 09/26/11

**Closes:** 10/31/11

(Applications must be received by 11:59 p.m. Pacific Time)

Full performance level: GS-13.

**Anticipated number of positions to be filled:** (1)

**Location:** Malin, Oregon

**Recruitment bonus may be offered to the selectee of this position.**

**Type of Position:** This is a Permanent position with a full-time work schedule.

**Benefits:** BPA offers a comprehensive benefits package. <http://www.jobs.bpa.gov/Benefits/>

### Eligibility

All United States citizens are eligible to apply.

*NOTE: You must submit separate and complete application packages for each vacancy for which you would like to be considered. This includes current or former federal employees eligible for transfer or reinstatement, veterans eligible for appointment under the Veterans' Employment Opportunities Act or other veterans' programs, and others eligible under special hiring authorities may apply under external announcements and internal Merit Promotion procedures: 9325-11.*

### About BPA

The Bonneville Power Administration has been powering people and careers for nearly 75 years. We are a non-profit federal agency that provides clean, emissions-free electricity to the Pacific Northwest and maintains a high voltage transmission system to deliver that electricity. We are a leader in sustainability and environmental stewardship, promoting energy efficiency, renewable energy, the smart grid, fish and wildlife protection and initiatives to address climate change. We are a visionary and innovative agency that values diversity and creativity and encourages continuous learning. We are located throughout the Pacific Northwest with opportunities in cities, smaller communities and rural areas. You can learn more about BPA at [www.bpa.gov](http://www.bpa.gov).

### Job Summary & Major Duties

Join us in an exciting opportunity to create strategic and innovative solutions that facilitate the achievement of critical business objectives and improved organizational effectiveness. In the role as a System Protection Control District Engineer you are the BPA technical expert for the installation, operation and maintenance, and failure analysis of SPC equipment in the District, which ranges from experimental to state-of-the-art.

You are the technical expert in the District for SPC equipment located in your District, including all aspects of District/Regional System equipment integration (e.g., modification, redesign, troubleshooting, etc.). As the technical expert for the District, you are responsible for working with manufacturers, BPA and other contractor resources for design, test, and integration of new and/or experimental equipment that extends the technology of the industry.

You are fully responsible for planning, organizing, and directing activities of SPC engineers and craftsmen working in the District to plan the prioritized requirements for resources to be used and is responsible for determining methodology of restoration of degraded or impaired equipment (e.g., new, upgraded, and/or specially designed equipment).

You will prepare detailed, comprehensive engineering studies to determine cause of equipment failures; determine if further testing is required, devises and coordinates a test program to locate malfunctioning systems; review results of tests and determines and implements corrective action; and prepare reports to assure that others in the power system with similar equipment are aware so they may take corrective action before equipment failures occur.

As the District SPC expert, you will plan and conduct assigned Test and Energization of new system control and protection, and metering equipment with complex circuits and circuit elements in the District. You will determine

the compatibility of the new equipment with the existing, and devises an integration plan which protects the continuity of the power system. You play the key role in field commissioning of new power system equipment, documenting and publishing reports for the benefit of other BPA engineers.

### **Technology Base:**

Bonneville Power Administration's Electrical Engineers (Power) perform power distribution/transport work focused on electrical energy, electrical devices (e.g., systems, equipment, and components) power stations, power generation and operations, utilities, circuit systems, and robotics. This work primarily concerns high-power electrical current transmission from the original central station along grids, wires, or cables to delivery points such as homes, businesses, and industries.

As such the incumbent must possess the ability to lead others in the usage of test equipment/software applications and other instrumentation to collect and interpret data to evaluate the performance of the power system and investigate and resolve system protection or control problems. This includes having knowledge of test and energization (T&E) procedures and processes to sufficiently improve and support collaborate work in theories and practices concerning HVAC and HVDC equipment such as voltage, current, and power transformers; HVAC switchgear and power circuit breakers; station control and indication; revenue metering installations; protective relaying devices, transfer trip installations; oscillographic recording devices; and/or event logging equipment.

## **Qualifications**

### **SPECIALIZED EXPERIENCE**

Experience in which the applicant carried out a wide range of professional electrical engineering studies and assignments associated with maintenance, construction, and/or engineering design activities related to electrical systems.

In order to be rated as meeting the minimum qualifications, we must be able to determine from your application package (includes resume, cover letter and or other supporting material) that you have a minimum of **one year** of the specialized experience requirement described above. *Applicants who have qualifying experience performed on less than a full-time basis must specify the percentage and length of time spent in performance of such duties.*

### **EDUCATION**

*To be rated as qualified for this position, college transcripts are required.*

A. Degree: professional engineering. To be acceptable, the curriculum must: (1) be in a school of engineering with at least one curriculum accredited by the Accreditation Board for Engineering and Technology (ABET) as a professional engineering curriculum; or (2) include differential and integral calculus and courses (more advanced than first-year physics and chemistry) in five of the following seven areas of engineering science or physics: (a) statics, dynamics; (b) strength of materials (stress-strain relationships); (c) fluid mechanics, hydraulics; (d) thermodynamics; (e) electrical fields and circuits; (f) nature and properties of materials (relating particle and aggregate structure to properties); and (g) any other comparable area of fundamental engineering science or physics, such as optics, heat transfer, soil mechanics, or electronics.

OR

B. Combination of education and experience – college-level education, training, and/or technical experience that furnished (1) a thorough knowledge of the physical and mathematical sciences underlying professional engineering, and (2) a good understanding; both theoretical and practical, of the engineering sciences and techniques and their applications to one of the branches of engineering. The adequacy of such background must be demonstrated by one of the following:

1. Professional Registration – Current registration as a professional engineer by any State, the District of Columbia, Guam, or Puerto Rico. Absent other means of qualifying under this standard, those applicants who achieved such registration by means other than written test are eligible only for positions that are within or closely related to the specialty field of their registration.
2. Written Test – Evidence of having successfully passed the Fundamentals-In-Engineering (FE) examination, or the written test required for professional registration, which is administered by the Boards of Engineering Examiners in the various States, the District of Columbia, Guam, and Puerto Rico. Applicants who have passed the examination and have completed all the requirements for either (a) a bachelor's degree in engineering technology (BET) from an accredited college or university that included 60 semester hours of courses in the physical, mathematical, and engineering sciences, or (b) a BET from a program accredited by the Accreditation Board for Engineering and Technology (ABET) may be rated eligible for certain engineering positions at the GS-5 level. Eligibility is limited to positions that are within or closely related to the specialty field of the engineering technology program.

3. Specified Academic Courses – Successful completion of at least 60 semester hours of courses in the physical, mathematical, and engineering sciences and in engineering that included the courses specified in the basic requirements. The courses must be fully acceptable toward meeting the requirements of a professional engineering curriculum as described in paragraph A.
4. Related Curriculum – Successful completion of a curriculum leading to a bachelor's degree in engineering technology or in an appropriate professional field, e.g., physics, chemistry, architecture, computer science, mathematics, hydrology, or geology, may be accepted in lieu of a degree in engineering, provided the applicant has had at least 1 year of professional engineering experience acquired under professional engineering supervision and guidance.

Education obtained outside the United States: If your education has been obtained outside the U.S, you must submit proof with your application that your transcripts have been evaluated by a private organization that specializes in interpretation of foreign educational credentials and have been deemed at least equivalent to that gained in conventional U.S. education institutions.

### **KNOWLEDGE, SKILLS, AND ABILITIES**

Your application materials will be reviewed against the knowledge, skills and abilities (KSAs) listed below to determine your category rating: Best Qualified, Highly Qualified, or Qualified. Within these categories, applicants eligible for veteran's preference will receive selection priority.

Please describe your experience and thoroughly address the statements below within your resume, cover letter, and/or other supporting material you choose to submit. Work product examples will not be reviewed unless specifically requested. **Clearly articulating your work experience to determine the application of this knowledge, these skills or abilities through performance is critical to determining your qualifications for this position.** For more information on how to provide supporting information for KSAs, please visit [http://jobs.bpa.gov/How\\_To\\_Apply/ksa.cfm](http://jobs.bpa.gov/How_To_Apply/ksa.cfm).

1. **(Technical)** Knowledge of electrical engineering theory and practice associated with the applications of protective relaying, metering, supervisory control, data acquisitions, telemetering, stability controls, microprocessor based control systems, and related equipment as it applies to High Voltage power systems. (Please describe your experience with as many of the following: protective relaying, revenue metering, supervisory control, data acquisitions, telemetering, stability controls, microprocessor based control systems and related equipment as it applies to high voltage power systems. Include experience involving HVAC and HVDC systems.)
2. **(Technical)** Knowledge of Electrical Power Transmission Systems and System Protection and Control designs to review construction plans, district maintenance procedures, substation construction, test and engineering procedures, and utilize computer theory and language to implement computerized test procedures. (Please describe your experience reviewing construction plans, district maintenance procedures, substation construction, test and engineering procedures, and utilize computer theory and language to implement computerized test procedures in a system protection capacity for a high voltage transmission system.)
3. **(Technical)** Knowledge of the techniques, principles, and policies of program/project management and contract administration, budgeting, and financial control sufficient to participate in all program/project management activities, including preparation of proposed plans, milestones, and schedules; preparation and execution of budgets; financial control; and administration and oversight of related contractor efforts. (Provide examples of the programs or projects you have participated in managing and describe your specific responsibility for contract administration and oversight, planning, budgeting, scheduling, and financial control. If you have not participated in managing a program or project, describe experience in which you observed program/project management activities.)
4. (Supervision and Leadership) **Ability to provide supervision and leadership through the effective use of teambuilding, coaching, and mentoring; assign accountability and responsibility as appropriate; establish standards of quantity and quality for work products; provide feedback on work accomplishments; and develop and motivate employees.** (Describe your experience/training that demonstrates your experience and/or potential for performing supervisory duties, including prior experience as a manager, supervisor, and/or team lead; experience providing guidance and training to employees; coordinating and integrating the work of others into a completed work product; experience as a "project" leader; resolving problems; providing advice to others; evaluating work products; and improving or devising new work methods, procedures, or improvements)
5. (Facilitating Work) **Ability to establish and define long- and short-term organizational goals; define required work results and establish parameters for accomplishment of these results; to facilitate a collaborative decision-making process; to encourage problem solving by subordinates; make**

**functional assignments based on recognized employee strengths; and develop and gain support for the organization's vision.** (Describe your experience formulating or participating in the establishment of work plans, work unit objectives, working with other individuals/organizations/work units in resolving problems and issues, and identification of resources necessary to accomplish objectives, including the stability of the work unit.)

6. (Communication) **Ability to clearly and concisely share information with subordinate staff; to present both verbally and in writing ideas which are shared with employees at all levels; to develop an atmosphere of teamwork through shared ideas and goals; to negotiate resolution or controversial issues; and to build relationships throughout the organization which facilitate the accomplishment of work.** (Describe the audience and your experience providing oral and written policy and/or program information.)
7. (Diversity) **Ability to recognize employee diversity and build on strengths; to ensure a discrimination and harassment-free workplace for all employees; to provide developmental and training opportunities for employees; to support and promote Bonneville's equal opportunity program.** (Describe your role and participation in diversity and EEO programs relative to employment advancement, performance management and/or training opportunity availability for employees.)

#### ADDITIONAL REQUIREMENTS

- Supervisory/Managerial Probationary Period.
- 1 to 5 nights of overnight travel per month is a requirement of this position.
- You must possess and maintain a valid state driver's license as a condition of appointment. You will be required to show proof that you meet this requirement if selected.
- The work requires some physical exertion, such as long periods of crouching, bending, or standing, or recurring and considerable walking, stooping, bending, and climbing in performing regular and periodic construction activities, field inspections, or to observe and study work operations. Work may also include frequent lifting of moderately heavy items weighing less than 50 pounds (i.e., 23 kilograms), such as equipment and samples.

#### SECURITY & SUITABILITY

The sensitivity level of this position is designated as 'Low Risk – Nonsensitive', which requires that the selectee pass a National Agency Check with Inquiries (NACI) personnel investigation and receive a favorable suitability determination. For more information please visit: [http://jobs.bpa.gov/How\\_To\\_Apply/faqs.cfm#18](http://jobs.bpa.gov/How_To_Apply/faqs.cfm#18)

PHYSICAL REQUIREMENTS		
Physical Requirement needed to perform essential functions NR=not required; Rarely = 1% or less; Occasionally = 1-33%; Frequently = 34-65%; Continually = 66-100%		
Climbing	Frequently	Able to climb flights of stairs and ladders up to 30 feet.
Balancing	Occasionally	Requires good balance to climb ladders. Balancing required on smooth and uneven surfaces in varied weather conditions.
	Rarely	On occasion, travel on snowshoes for several miles at a time may be required.
Leg/Foot Use	Occasionally	To operate vehicles including snowcats and to climb ladders.
Standing	Occasionally	Average of 1-2 hours per day; Operates copiers, inspects work, consults with colleagues, works at drawing table

Sitting	Frequently	Works at computer, attends meetings, and performs office work while sitting at office chairs; Drives vehicles to and from work sites and to operate and to test equipment. Extensive driving over unimproved surfaces, including steep and narrow roads, may be required. Average 3-5 hours per day.
Walking	Occasionally	Walks on smooth or uneven surfaces. Average is up to 1 hour per day. Rarely may be required to walk several miles on snowshoes while carrying a heavy backpack under harsh conditions.
Lifting/Carrying	Occasionally	Occasionally lifts and carries test equipment, Average weight is 10 pounds; Occasionally lifts up to 60 pounds, at waist level. Rarely lifts and carries up to 90 lb boxes of equipment at chest or head level.
Pushing/Pulling	Occasionally	Moves and positions equipment and materials with a force of 90 pounds.
Twisting/Bending/ Stooping (knees, waist, neck, wrist)	Occasionally	Lifts, moves, carries, repositions, and operates test equipment and vehicles.
Handling/Grasping	Occasionally	Handles small, delicate components and tools involved in diagnostic testing for installation and repair of equipment. Handles shovels, hand axe, machetes, hammers and other hand d and power tools. Must be able to grasp/handle two separate items at separate points.
Reaching	Occasionally	Works with arms overhead up to 9 feet to do testing and make measurements.
Crouching	Occasionally	Crouches when working in confined spaces and in awkward positions or performing work close to the floor.
Kneeling/Crawling	Occasionally	Kneels to access and test equipment. Rarely crawls short distances in and around vehicles.
Fingering/Feeling	Frequently	Performs keyboarding, and phone usage. Occasionally performs diagnostic testing for installation and repair of equipment requiring fine finger manipulation. Rarely uses hands and fingers to discern roughness or smoothness of equipment surfaces.
<b>USE OF SENSES</b>		
Talking	Continually	Must be able to communicate with co-workers and to provide clear, accurate communication in accordance to NERC requirements.
Hearing	Continually	To receive information from co-workers and listen for telephone. Ability to hear abnormal noises while troubleshooting.
Vision	Continually	To safely operate equipment and use tools while testing equipment, doing installations or performing repairs and reading electrical drawings. Requires good spatial ability/depth perception, night vision and sufficient color discrimination to distinguish color-coding or shade variations. Distant vision (corrected if applicable) of at least 20/40.
Smell	Occasionally	Able to detect the odor of various gases, fuels, exhausts, and burnt or burning electrical equipment.
<b>MENTAL REQUIREMENTS</b>		
Requires ability to perform effectively under stress for extended periods of time in hazardous situations interact/communicate with others; comprehend and follow directions; work both independently and as a team member; make decisions and judgments; maintain flexibility in performing a variety of tasks, pay attention to detail, follow safety rules; operate vehicles and equipment safely; read and comprehend manuals, maps and blueprints, math/geometric skills, basic computer skills. Work may involve working alone and in isolated locations.		
<b>ENVIRONMENTAL</b>		
Work is performed primarily indoors with travel to remote sites required. Requires the ability to perform work outside in all weather conditions. Occasional exposure to hazards typical of working around high voltage equipment. Occasional exposure to loud noises. May at times work with various chemicals. MSDS are available. Required to wear various levels of PPE (hearing protection, respiratory protection, hard hats, safety glasses, cold weather gear; safety belts and harnesses, rubber or leather gloves).		

## SPECIAL EQUIPMENT

Uses various equipment such as cars, trucks, snowcats, chainsaws, and communication equipment. Uses office equipment such as computers, telephones, copy and fax machines, cell phones and gps equipment.

### Application Package Checklist

- ☐ Resume, cover letter, and/or other supporting material you choose to submit that fully describe your education and experience. Application must contain sufficient information to determine eligibility for the position. (Optional Application for Federal Employment (OF-612): <http://www.usajobs.opm.gov/of612.asp>).

#### Applications must include the following information:

- ☐ Job Announcement number, title, and grade
- ☐ Full legal name, mailing address, contact telephone number and email address
- ☐ Country of citizenship (SSN or other ID is not requested at this time)
- ☐ High school attended which includes name of high school and location.
- ☐ Employment history including unpaid positions with job title, grade (if Federal), duties and accomplishments, employer's name and address, supervisor's name and phone number, starting and ending dates (month and year), salary, and hours worked per week. Explain any gaps in employment.
- ☐ Indication if we may contact your current supervisor.
- ☐ List of other job-related training, skills, certificates and licenses, recognition, professional memberships, publications, leadership activities, or other relevant information.
- ☐ College transcripts (photocopies are acceptable).
- ☐ VETERANS: To be considered for veteran's preference, a copy of your DD-214 (Member 4) is required. 10-point veterans must also provide a copy of their SF-15 and associated documentation.
- ☐ All applicants are encouraged to complete and submit BPA Form F3330-11e, Applicant Disability, Race/National Origin and Gender Identification form and Applicant Source Form located at the end of this announcement, or at [http://jobs.bpa.gov/How\\_To\\_Apply/forms.cfm](http://jobs.bpa.gov/How_To_Apply/forms.cfm).

### How to Submit Your Application

Applications may be emailed, faxed or mailed. Due to security requirements, we only accept hand-delivered application from individuals who currently have badge access to the building.

- **Email to: [jobs@bpa.gov](mailto:jobs@bpa.gov)** with the Job Announcement Number in the subject line and on any attachments.
- **Fax to: 503-230-3149**
- **Send via US Mail to:** Bonneville Power Administration, ATTN: Human Capital Management, NHQ-1, PO Box 3621, Portland, OR 97208-3621.

You will be notified via email to confirm receipt of your application package. *Applicants should retain a copy of their application as BPA does not return applications or provide copies.* For more information on the hiring process, please refer to: [http://jobs.bpa.gov/How\\_To\\_Apply/whathappens.cfm](http://jobs.bpa.gov/How_To_Apply/whathappens.cfm).

### Additional Information

**Veterans Information:** <http://www.usajobs.gov/vi>

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#### Career Transition Assistance Program/Interagency Career Transition Assistance Program

**(CTAP/ICTAP):** Federal employees seeking CTAP/ICTAP eligibility must submit proof that they meet the requirements of 5 CFR 330.605 (a) for CTAP and 5 CFR 330.704 for ICTAP. This includes a copy of the agency notice, a copy of their most recent Performance Rating and a copy of their most recent SF-50 noting current position, grade level, and duty location. **Please annotate your application to reflect that you are applying as a CTAP or ICTAP eligible.** For additional information please refer to <http://www.opm.gov/ctap/>

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**EEO Policy Statement:** <http://www.usajobs.gov/eeo>

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**Reasonable Accommodation Policy Statement:** <http://www.usajobs.gov/raps>

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**Legal and Regulatory Guidance:** <http://www.usajobs.gov/lrg>

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**Forms Availability:** All application materials may be obtained by calling 503-230-3230, or 1-877-975-4272 or visiting: <http://www.jobs.bpa.gov>.

## **Applicant Source Form**

The Bonneville Power Administration's Human Capital Management office has an ongoing process improvement objective associated with recruitment and outreach strategies. In order for us to assess the effectiveness of our current advertising and Recruitment efforts, please identify how you learned about this job by marking the appropriate box below:

Vacancy Announcement Number	Position Title, Series, Grade
<input type="text"/>	<input type="text"/>

☐ **BPA Website**

☐ **USAJOBS Website**

☐ **Job Board** (CareerBuilder, Craigslist, Employment Dept, etc.)

**(please specify):** \_\_\_\_\_

☐ **Industry Website or Event** (National Institute of Government Purchasers, GreenDrinks, etc.)

**(please specify):** \_\_\_\_\_

☐ **Social Media Website** (Facebook, LinkedIn, etc.)

**(please specify):** \_\_\_\_\_

☐ **Career Fair** (campus events, community event)

**(please specify):** \_\_\_\_\_

☐ **BPA employee**

☐ **Other (please specify):** \_\_\_\_\_

U.S. Office of Personnel Management Guide to Personnel Data Standards	<b>ETHNICITY AND RACE IDENTIFICATION</b> (Please read the Privacy Act Statement and instructions before completing form.)	
Name (Last, First, Middle Initial) <div style="background-color: #cccccc; width: 100px; height: 15px;"></div>		
Agency Use Only		
<b>Privacy Act Statement</b>  Ethnicity and race information is requested under the authority of 42 U.S.C. Section 2000e-16 and in compliance with the Office of Management and Budget's 1997 Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity. Providing this information is voluntary and has no impact on your employment status, but in the instance of missing information, your employing agency will attempt to identify your race and ethnicity by visual observation.  This information is used as necessary to plan for equal employment opportunity throughout the Federal government. It is also used by the U. S. Office of Personnel Management or employing agency maintaining the records to locate individuals for personnel research or survey response and in the production of summary descriptive statistics and analytical studies in support of the function for which the records are collected and maintained, or for related workforce studies.		
<b>Specific Instructions:</b> The two questions below are designed to identify your ethnicity and race. <b>Regardless of your answer to question 1, go to question 2.</b>		
<b>Question 1. Are You Hispanic or Latino?</b> (A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.) <input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>Question 2.</b> Please select the racial category or categories with which you most closely identify by placing an "X" in the appropriate box. Check as many as apply.		
RACIAL CATEGORY (Check as many as apply)	DEFINITION OF CATEGORY	
<input type="checkbox"/> American Indian or Alaska Native  <input type="checkbox"/> Asian  <input type="checkbox"/> Black or African American  <input type="checkbox"/> Native Hawaiian or Other Pacific Islander  <input type="checkbox"/> White	A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.  A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.  A person having origins in any of the black racial groups of Africa.  A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.  A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.	

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